

What is claimed is:

1. A method of supporting hand-off determination for guaranteeing mobility of a dual-mode terminal in a mixed communication network in which a synchronous and an asynchronous network system coexist, the dual-mode terminal being capable of accessing both the synchronous and the asynchronous network system, comprising the steps of:

(a) transmitting information of terminal capability operable in both the synchronous and the asynchronous network system to the mixed communication network, irrespective of which network system a present service area belongs to, at the side of the dual-mode terminal; and

(b) constructing information on adjacent cells, which are selectively included based on the received terminal capability information, of the dual-mode terminal, and providing the dual-mode terminal with the constructed adjacent cell information, at the side of the mixed communication network.

2. The method set forth in claim 1, wherein said step (a) inserts information of terminal capability operable in the asynchronous network system in an originating message including a protocol revision number, if the dual-mode terminal is operative in service area of the synchronous network system.

3. The method set forth in claim 2, wherein, in said step (b), a controller installed in the synchronous network system checks, based on the received terminal capability information, whether or not the dual-mode terminal can access the asynchronous network system, and sends the information on adjacent cells of the asynchronous network

system to the dual-mode terminal, if accessible.

4. The method set forth in claim 3, wherein the adjacent cell information of the asynchronous network system is inserted in an adjacent cell list, the adjacent cell list being carried to the dual-mode terminal through a neighboring cell list message by the controller.

5. The method set forth in claim 1, wherein said step (a) inserts a protocol revision number, which is necessary to be operable in the synchronous network system, in a terminal capability message, if the dual-mode terminal is operative in service area of the asynchronous network system.

6. The method set forth in claim 5, wherein, in said step (b), a controller installed in the asynchronous network system checks, based on the received terminal capability information, whether or not the dual-mode terminal can access the synchronous network system, and sends the information on adjacent cells of the synchronous network system to the dual-mode terminal if accessible.

7. The method set forth in claim 6, wherein the adjacent cell information of the synchronous network system is inserted in an adjacent cell list, the adjacent cell list being carried to the dual-mode terminal through a system parameter message by the controller.

8. A method of supporting hand-off determination for guaranteeing mobility of a dual-mode terminal in a mixed communication network in which synchronous and asynchronous service areas are overlapped, the dual-mode terminal being capable of accessing both a synchronous and an asynchronous network system, comprising the steps

of:

(a) transmitting information on terminal capability operable in the synchronous and the asynchronous network system to the mixed communication network, irrespective of which network system a present
5 service area belongs to, at the side of the dual-mode terminal;

(b) checking, based on the received terminal capability information, whether or not the dual-mode terminal can access the asynchronous network system, and sending information of adjacent cells of the asynchronous network system to the dual-mode terminal
10 if accessible, at the side of a first controller installed in the synchronous network system checks; and

(c) checking, based on the received terminal capability information, whether or not the dual-mode terminal can access the synchronous network system, and sending information on adjacent cells
15 of the synchronous network system to the dual-mode terminal if accessible, at the side of a second controller installed in the asynchronous network system.

9. The method set forth in claim 8, wherein said step (a) inserts information of terminal capability operable in the asynchronous
20 network system in an originating message including a protocol revision number, if the dual-mode terminal is operative in service area of the synchronous network system.

10. The method set forth in claim 8, wherein said step (b) inserts the information on adjacent cells of the asynchronous network system
25 in an adjacent cell list, the adjacent cell list being carried to the dual-mode terminal through a neighboring cell list message by the first controller.

11. The method set forth in claim 8, wherein said step (a) inserts a protocol revision number, which is necessary to be operable in the synchronous network system, in a terminal capability message, if the dual-mode terminal is operative in service area of the asynchronous
5 network system.

12. The method set forth in claim 8, wherein said step (c) inserts the information on adjacent cells of the synchronous network system in an adjacent cell list, the adjacent cell list being carried to the dual-mode terminal through a system parameter message by the
10 second controller.